

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Cancelled):

Claim 2 (Currently Amended): A transceiver according to ~~claim 1~~Claim 5, wherein the scattering structure is a passive structure.

Claim 3 (Currently Amended): A transceiver according to Claim 5~~claim 1~~, wherein the scattering property of the scattering structure can be externally adjusted.

Claim 4 (Cancelled):

Claim 5 (Previously Presented): A MIMO transceiver comprising:
an antenna array having a plurality of antennas;
a scattering structure, associated with the plurality of antennas, configured to
receive the signals from the plurality of antennas, and
to increase path diversity associated with the transceiver; and
a controller configured to control the scattering structure to modify the eigenmodes formed between the transceiver and a receiver.

Claim 6 (Previously Presented): A MIMO transceiver comprising:
an antenna array having a plurality of antennas;
a scattering structure, associated with the plurality of antennas, configured
to receive the signals from the plurality of antennas, and
to increase path diversity associated with the transceiver; and

a controller configured to receive feedback information from the receiver and to use the feedback information to control the scattering structure.

Claim 7 (Currently Amended): A transceiver according to ~~claim 1~~Claim 5, wherein the scattering structure scatters the incident signals by at least one of diffraction, reflection or refraction or use of a wave-guide.

Claim 8 (Currently Amended): A transceiver according to Claim 5~~claim 1~~, wherein the scattering structure is a diffraction grating.

Claim 9 (Currently Amended): A transceiver according to Claim 5~~claim 1~~, wherein the scattering structure comprises one or more scattering elements, each associated with one or more of said antennas.

Claim 10 (Original): A transceiver for use with a second transceiver comprising an antenna array having a plurality of antennas and a scattering structure associated with the antennas for receiving the signals from the antennas, the transceiver having

an antenna array having a plurality of antennas;

feed back means for generating feedback information about the properties of the signals received by the antenna array; and

transmission means for sending said feedback information to said second transceiver for adjusting said scattering structure.

Claim 11 (Original): A communication system comprising a first transceiver and a second transceiver, the second transceiver comprising:

a second transceiver antenna array having a plurality of antennas;
a scattering structure associated with the antennas for receiving the signals from the antennas; and
a controller for controlling the scattering structure, and the first transceiver comprising:
a first transceiver antenna array having a plurality of antennas;
feed-back means for generating feedback information about the properties of the signals received by the first transceiver antenna array; and
transmission means for sending said feedback information to said second transceiver for adjusting said scattering structure.

Claim 12 (Currently Amended): A communication system including a transceiver according to Claim 5~~claim 1~~.

Claim 13 (Original): A method of scattering signals produced by an array of antennas, the method comprising:
interposing a scattering structure between the antennas and a receiver to scatter the beams produced by the antennas,
receiving feedback information concerning the strength of the eigenmodes established between the antennas and a receiver; and
adjusting the scattering structure to vary the scattering of the beams produced by the antennas.

Claim 14 (Original): A method according to claim 13, wherein the scattering structure is a passive structure.

Claim 15 (Original): A method according to claim 13, wherein the scattering structure scatters the incident signals by at least one of diffraction, reflection or refraction.

Claim 16 (Original): A method according to claim 13, wherein the scattering structure is a diffraction grating

Claim 17 (Original): A method according to claim 13, wherein the scattering structure comprises one or more scattering elements, each associated with one or more of said antennas.

Claim 18 (Cancelled):

Claim 19 (Currently Amended): A transceiver according to ~~claim 18~~ Claim 22, wherein the scattering structure is a passive structure.

Claim 20 (Currently Amended): A transceiver according to Claim 22~~claim 18~~, wherein the scattering property of the scattering structure can be externally adjusted.

Claim 21 (Cancelled):

Claim 22 (Previously Presented): A MIMO transceiver comprising:
an antenna array having a plurality of antennas; and
a scattering structure, associated with the plurality of antennas, configured
to receive and forward incoming signals to the antenna array, and

to increase path diversity associated with the transceiver; and
a controller configured to control the scattering structure to modify the eigenmodes formed between the transceiver and a transmitter.

Claim 23 (Previously Presented): A MIMO transceiver, comprising:
an antenna array having a plurality of antennas; and
a scattering structure, associated with the plurality of antennas, configured
to receive and forward incoming signals to the antenna array, and
to increase path diversity associated with the transceiver; and
a controller configured to analyze the received signal and use an analysis result to control the scattering structure.

Claim 24 (Currently Amended): A transceiver according to Claim 22~~claim 18~~,
wherein the scattering structure scatters the incident signals by at least one of diffraction, reflection or refraction or use of a wave-guide.

Claim 25 (Currently Amended): A transceiver according to Claim 22~~claim 18~~,
wherein the scattering structure is a diffraction grating.

Claim 26 (Currently Amended): A transceiver according to Claim 22~~claim 18~~,
wherein the scattering structure comprises one or more scattering elements, each associated with one or more of said antennas.